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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,259	06/11/2001	Michael Schmidt	MERCK-2272	8004

23599 7590 11/15/2004

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
2200 CLARENDON BLVD.  
SUITE 1400  
ARLINGTON, VA 22201

EXAMINER

STOCKTON, LAURA LYNNE

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/877,259

**Applicant(s)**

SCHMIDT ET AL.

**Examiner**

Laura L. Stockton, Ph.D.

**Art Unit**

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

Claims 1-20 are pending in the application.

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on July 28, 2004 has been entered.

The Petition Decision mailed July 30, 2004 has been noted. The following is now required.

*Election/Restrictions*

Restriction to one of the following inventions is required under 35

U.S.C. 121:

- I. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is a pyridinium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is a pyridinium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is a pyridinium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is a pyridinium ring, classified in class 546, subclass 22+.
- II. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is a pyridazinium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is a pyridazinium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is a pyridazinium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is a pyridazinium ring, classified in class 544, subclass 232.

- III. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is a pyrimidinium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is a pyrimidinium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is a pyrimidinium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is a pyrimidinium ring, classified in class 544, subclass 243.
- IV. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is a pyrazinium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is a pyrazinium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is a pyrazinium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is a pyrazinium ring, classified in class 544, subclass 337.
- V. Claims 1-20, drawn to an ionic liquid wherein  $K^+$  is an imidazolium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is an imidazolium ring, a capacitor

comprising the ionic liquid wherein  $K^+$  is an imidazolium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is an imidazolium ring, classified in class 548, subclass 112+.

VI. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is a thiazolium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is a thiazolium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is a thiazolium ring and an electrolyte composition comprising the ionic liquid wherein  $K^+$  is a thiazolium ring, classified in class 548, subclass 112+.

VII. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$  is an oxazolium ring, an electrochemical cell comprising the ionic liquid wherein  $K^+$  is an oxazolium ring, a capacitor comprising the ionic liquid wherein  $K^+$  is an oxazolium ring and an electrolyte composition comprising the ionic liquid

wherein  $K^+$  is an oxazolium ring, classified in class 548,  
subclass 112+.

VIII. Claims 1-11 and 14-20, drawn to an ionic liquid wherein  $K^+$   
is a 1,2,4-triazolium ring, an electrochemical cell comprising  
the ionic liquid wherein  $K^+$  is a 1,2,4-triazolium ring, a  
capacitor comprising the ionic liquid wherein  $K^+$  is a 1,2,4-  
triazolium ring and an electrolyte composition comprising the  
ionic liquid wherein  $K^+$  is a 1,2,4-triazolium ring, classified in  
class 548, subclass 112+.

The inventions are distinct, each from the other because of the  
following reasons: the ionic liquids of Groups I-VIII differ materially in  
structure and element so much so as to be patentably distinct. In  
addition, a reference which anticipates one group may not even render  
obvious the other.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the search required for Group I, for example, is not required for Group II, restriction for examination purposes as indicated is proper. Therefore, it would impose an undue burden on the Examiner and the Patent Office's resources to examine the instant application if unrestricted.

The above groups themselves are inclusive of patentably distinct subject matter. Accordingly, along with the election of one of the above groups, the following action is also taken.



Applicant is required under 35 U.S.C. 121 to elect a single disclosed species (e.g., Example number, page number and structural depiction) from whichever group is ultimately elected, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

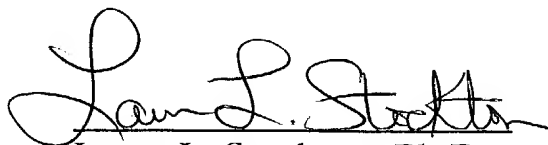
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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The Official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

A handwritten signature in black ink, appearing to read "Laura L. Stockton". The signature is fluid and cursive, with the first name "Laura" and last name "Stockton" clearly distinguishable.

Laura L. Stockton, Ph.D.

Patent Examiner

Art Unit 1626, Group 1620

Technology Center 1600

October 6, 2004